BRUHAT BENGALURU MAHANAGARA PALIKE

Name of work : IMPROVEMENTS AND ASPHALTING TO ROADS AT AGRAHARA LAYOUT IN WARD NO 05

Sl No	Description of work	No	Dimensions			Quantity	Estimate Cost:Rs. Rate	Unit	30000000 Amount
			L	B	D				
1	2	3	4	5	6	7	8	9	10
1	KSRB 2-1.1 : Earthwork in surface excavation in ordinary soil for levelling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface levelled and neatly dressed, disposed earth to be levelled after breaking of clods and neatly dressed as per specifications. specification. No. KBS 2.1(a) / 2.3.1 **P-5, It 2.1**								
	Basic Rate	157.00							
	Area Weightage 6%	9.42							
	Total	**166.42**							
	1ST MAIN	1	735.00	6.00	0.10	441.00			
	2nd MAIN	1	635.00	6.00	0.10	381.00			
	3rd MAIN	1	532.00	6.00	0.10	319.20			
	4th MAIN	1	435.00	6.00	0.10	261.00			
	5th MAIN	1	340.00	6.00	0.10	204.00			
	6th MAIN	1	250.00	6.00	0.10	150.00			
	7th MAIN	1	150.00	6.00	0.10	90.00			
	SCHOOL EAST & WEST (	1	395.00	6.00	0.10	237.00			
	AGRAHARA MAINROAD	1	440.00	8.00	0.10	352.00			
	THIRUMENAHALLI MR	1	575.00	9.00	0.10	517.50			
				Total		**2952.70**	**166.42**	**Cum**	**491388**
2	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5. (P.No. 5/I.No. 2.4 of CSR 2015-16) **P-5, It 2.4**								
	Basic Rate	283.00							
	Area Weightage 6%	16.98							
	Total	**299.98**							
	1ST MAIN	2	735.00	0.90	0.45	595.35			
	2nd MAIN	2	635.00	0.90	0.45	514.35			
	3rd MAIN	2	532.00	0.90	0.45	430.92			
	4th MAIN	2	435.00	0.90	0.45	352.35			
	5th MAIN	2	340.00	0.90	0.45	275.40			
	6th MAIN	2	250.00	0.90	0.45	202.50			
	7th MAIN	2	150.00	0.90	0.45	121.50			
	SCHOOL EAST & WEST (	2	395.00	0.90	0.45	319.95			
	AGRAHARA MAINROAD	2	440.00	2.25	0.45	891.00			
	THIRUMENAHALLI	2	575.00	2.50	0.45	1293.75			
				Total		**4997.07**	**299.98**	**Cum**	**1499021**

	Description of work	No	Dimensions			Quantity	Rate	Unit	Amount
			L	B	D				
	2	3	4	5	6	7	8	9	10
	KSRRB M100-1 Loading and unloading of stone boulder/stone aggregates/sand/.kanker/moorum. KSRRB M100-1:Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specification MORTH Chapter 1 **P-130, It 17.1)**								
	Basic Rate Conveying for 5 km	100.00							
	Area Weightage6%	6.00							
	Total	**106.00**							
	QtyVid ItemNo. 1					2952.70			
	QtyVid ItemNo. 2					4997.07			
					Total	**7949.77**	**106.00**	**Cum**	**842676**
4	KSRRB 300- Scarifying the surface and dressing KSRRB 300-44 Scarifying top bituminous surface or surface dressing or premix carpet including picking up scarified materials, stacking of old serviceable materials by manual means including cost of all abour charges complete as per specifications. MORTH / Chapter 3 **P-147, It 19.50**								
	Basic Rate	25.00							
	Area Weightage 6 %	1.50							
	Total	**26.50**							
	1ST MAIN	1	735.00	4.20		3087.00			
	2nd MAIN	1	635.00	4.20		2667.00			
	3rd MAIN	1	532.00	4.20		2234.40			
	4th MAIN	1	435.00	4.20		1827.00			
	5th MAIN	1	340.00	4.20		1428.00			
	6th MAIN	1	250.00	4.20		1050.00			
	7th MAIN	1	150.00	4.20		630.00			
	SCHOOL EAST & WEST (	1	395.00	4.20		1659.00			
	AGRAHARA MAINROAD	1	440.00	3.75		1650.00			
	THIRUMENAHALLI	1	575.00	4.00		2300.00			
					Total	**18532.40**	**26.50**	**Cum**	**491109**
5	KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 **P-149, It 19.64**								
	Basic Rate	5.00							
	Area Weightage 6 %	0.30							
	Total	**5.30**							
	1ST MAIN	1	735.00	4.20		3087.00			
	2nd MAIN	1	635.00	4.20		2667.00			
	3rd MAIN	1	532.00	4.20		2234.40			
	4th MAIN	1	435.00	4.20		1827.00			
	5th MAIN	1	340.00	4.20		1428.00			
	6th MAIN	1	250.00	4.20		1050.00			
	7th MAIN	1	0.00	4.20		0.00			
	SCHOOL EAST & WEST (	1	735.00	4.20		3087.00			
	AGRAHARA MAINROAD	1	440.00	3.75		1650.00			
	THIRUMENAHALLI	1	575.00	4.00		2300.00			
					Total	**19330.40**	**5.30**	**Cum**	**102451**

Description of work	No	Dimensions			Quantity	Rate	Unit	Amount
		L	B	D				
2	3	4	5	6	7	8	9	10
KSRRB M400-6.1. Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. ***P-155, It 20.4.2***								
Basic Rate	*1571.00*							
Area Weightage 6%	*94.26*							
Total	***1665.26***							
1ST MAIN	2	735.00	*0.90*	*0.2*	*264.60*			
2nd MAIN	2	635.00	*0.90*	*0.2*	*228.60*			
3rd MAIN	2	532.00	*0.90*	*0.2*	*191.52*			
4th MAIN	2	435.00	*0.90*	*0.2*	*156.60*			
5th MAIN	2	340.00	*0.90*	*0.2*	*122.40*			
6th MAIN	2	250.00	*0.90*	*0.2*	*90.00*			
7th MAIN	2	150.00	*0.90*	*0.2*	*54.00*			
SCHOOL EAST & WEST (	2	395.00	*0.90*	*0.2*	*142.20*			
AGRAHARA MROAD	2	440.00	*2.25*	*0.2*	*396.00*			
THIRUMENAHALLI	2	575.00	*2.50*	*0.2*	*575.00*			
			Total		***2220.92***	***1665.26***	***Cum***	***3698409***
KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 ***P-157, It 20.18***								
Basic Rate	*1668.00*							
Area Weightage 6%	*100.08*							
Total	***1768.08***							
1ST MAIN	2	735.00	*0.90*	*0.25*	*330.75*			
2nd MAIN	2	635.00	*0.90*	*0.25*	*285.75*			
3rd MAIN	2	532.00	*0.90*	*0.25*	*239.40*			
4th MAIN	2	435.00	*0.90*	*0.25*	*195.75*			
5th MAIN	2	340.00	*0.90*	*0.25*	*153.00*			
6th MAIN	2	250.00	*0.90*	*0.25*	*112.50*			
7th MAIN	2	150.00	*0.90*	*0.25*	*67.50*			
SCHOOL EAST & WEST (	2	395.00	*0.90*	*0.25*	*177.75*			
AGRAHARA MROAD	2	440.00	*2.25*	*0.25*	*495.00*			
THIRUMENAHALLI	2	575.00	*2.50*	*0.25*	*718.75*			
ROAD								
1ST MAIN	1	735.00	*4.20*	*0.2*	*617.40*			
2nd MAIN	1	635.00	*4.20*	*0.2*	*533.40*			
3rd MAIN	1	532.00	*4.20*	*0.2*	*446.88*			
4th MAIN	1	435.00	*4.20*	*0.2*	*365.40*			
5th MAIN	1	340.00	*4.20*	*0.2*	*285.60*			
6th MAIN	1	250.00	*4.20*	*0.2*	*210.00*			
7th MAIN	1	150.00	*4.20*	*0.2*	*126.00*			
SCHOOL EAST & WEST (	1	395.00	*4.20*	*0.2*	*331.80*			
AGRAHARA MAINROAD	1	440.00	*3.75*	*0.2*	*330.00*			

	Description of work	No	Dimensions			Quantity	Rate	Unit	Amount
			L	B	D				
	2	3	4	5	6	7	8	9	10
	THIRUMENAHALLI	1	575.00	4.00	0.2	460.00			
				Total		6482.63	1768.08	Cum	11461808
3	Providing and applying primer coat for surfaces of medium porosity like cement stabilized soil base @ 1.10kg/sqmt over prepared surface with S.S bitumen emulsion using bitumen tanker fitted with spray set (excluding cleaning of road surface) including cost of all material, labour, HOM of machineries complete as per specifications.. MORTH Chapter 5 **P-159, It 21.6**								
	Basic Rate	26.00							
	Area Weightage6%	1.56							
	Total	**27.56**							
	1ST MAIN	1	735.00	6.00		4410.00			
	2nd MAIN	1	635.00	6.00		3810.00			
	3rd MAIN	1	532.00	6.00		3192.00			
	4th MAIN	1	435.00	6.00		2610.00			
	5th MAIN	1	340.00	6.00		2040.00			
	6th MAIN	1	250.00	6.00		1500.00			
	7th MAIN	1	150.00	6.00		900.00			
	SCHOOL EAST & WEST (	1	395.00	6.00		2370.00			
	AGRAHARA MAINROAD	1	440.00	8.00		3520.00			
	THIRUMENAHALLI	1	575.00	9.00		5175.00			
				Total		29527.00	27.56	Sqm	813764
9	KSRRB 500-7. Providing and applying tack coat on the prepared black topped surfaces at 5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 **P-159, It 21.7**								
	Basic Rate	11.00							
	Area Weightage 6%	0.66							
	Total	**11.66**							
		1	440.00	8.00		3520.00			
		1	575.00	9.00		5175.00			
				Total		8695.00	11.66	Sqm	101384
10	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen **P-162, It 21.17.6**								
	Basic Rte	6071.00							
	Area Weightage 6%	364.26							
	Total	**6435.26**							
		1	440.00	8.00	0.05	176.00			
		1	575.00	9.00	0.05	258.75			
				Total		434.75	6435.26	Cum	2797729

Description of work	No	Dimensions			Quantity	Rate	Unit	Amount
		L	B	D				
2	3	4	5	6	7	8	9	10
KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder a and filler, transporting the hot mix to work site, laying with a paver finisher with to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects as per specifications. using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen **P-164, It 21.22.6**								
Basic Rte	6859.00							
Area Weightage6%	411.54							
Total	**7270.54**							
	1	440.00	8.00	0.03	105.60			
	1	575.00	9.00	0.03	155.25			
1ST MAIN	1	735.00	6.00	0.03	132.30			
2nd MAIN	1	635.00	6.00	0.03	114.30			
3rd MAIN	1	532.00	6.00	0.03	95.76			
4th MAIN	1	435.00	6.00	0.03	78.30			
5th MAIN	1	340.00	6.00	0.03	61.20			
6th MAIN	1	250.00	6.00	0.03	45.00			
7th MAIN	1	150.00	6.00	0.03	27.00			
SCHOOL EAST & WEST	1	395.00	6.00	0.03	71.10			
			Total		**885.81**	**7270.54**	**Cum**	**6440317**
KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 **P-185, It 24.15**								
Basic Rte	512.00							
Area Weightage 6%	30.72							
Total	**542.72**							
	2.5	440.00	0.10		110.00			
	2.5	575.00	0.10		143.75			
	2.5	735.00	0.10		183.75			
	2.5	635.00	0.10		158.75			
	2.5	532.00	0.10		133.00			
	2.5	435.00	0.10		108.75			
	2.5	340.00	0.10		85.00			
	2.5	250.00	0.10		62.50			
	2.5	150.00	0.10		37.50			
	2.5	395.00	0.10		98.75			
			Total		**1121.75**	**542.72**	**Sqm**	**608796**
Painting two coats on New Concrete Surface:-Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces complete as per specifications **P-184, It 24.7**								
Basic Rte	66.00							
Area Weightage 6%	3.96							
Total	**69.96**							

Description of work	No	Dimensions			Quantity	Rate	Unit	Amount
		L	B	D				
2	3	4	5	6	7	8	9	10
	2	440.00		0.4	352.00			
	2	575.00		0.4	460.00			
			Total		812.00	69.96	Sqm	56808
								29405660
2% PMC Charges								588113
Miscellaneous & Rounding off							L/S	6227
Grand Total Rs:								30000000

CERTIFICATE

1. The work spot has been inspected and found to be necessary
2. The work spot comes under BBMP Limits
3. The provisions made in the estimate are necessary and minimum
4. The estimate is based on CSR of 2016-2017

Assistant Engineer

Executive Engineer 24/3/17.

Assistant Executive Engineer

Technical Sanction
Accorded For 300.00 lakh Rs.
Head of A/C P3112
CER NO : 190 Dt: 24.3.17

[TA] CE (YNK)